

Applicant : Nai-Kong CHEUNG  
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AMENDMENTS TO THE CLAIMS:

Applicants have previously canceled claims 1-66 without prejudice to the Applicant's rights to pursue the subject matters in a future application:

1-66. (Canceled)

67. (Currently amended) A composition comprising a synergistically effective amount of orally-administered glucan comprising 1,3- $\beta$ -backbone with mixed linkages, wherein the glucan is capable of enhancing efficacy of a antibodies, which are foreign to the immune system of a host.

68. (Previously presented) The composition of claim 67, wherein the antibody is a monoclonal antibody.

69. (Previously presented) The composition of claim 67, wherein the antibody is an antibody against cancer.

70. (Previously presented) The composition of claim 69, wherein the antibody is a tumor-binding antibody.

71. (Previously presented) The composition of claim 70, wherein the antibody is capable of activating complement.

72. (Previously presented) The composition of claim 71, the antibody is further capable of activating the antibody dependent cell-mediated cytotoxicity.

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73. (Previously presented) The composition of claim 70, wherein the antibody is directed at HER-1 (epidermal growth factor receptor).
74. (Previously presented) The composition of claim 70, wherein the antibody is directed to a ganglioside.
75. (Previously presented) The composition of claim 74, wherein the ganglioside is GD2 or GD3.
76. (Previously presented) The composition of claim 70, wherein the antigen is CD20 or CD22.
77. (Previously presented) The composition of claim 70, wherein the antigen is HER-2/neu.
78. (Previously presented) The composition of claim 70, wherein the antigen is CD25.
79. (Previously presented) The composition of claim 69, wherein the cancer is neuroblastoma, melanoma, non-Hodgkin's lymphoma, Epstein-Barr related lymphoma, Hodgkin's lymphoma, retinoblastoma, small cell lung cancer, brain tumors, leukemia, epidermoid carcinoma, prostate cancer, renal cell carcinoma, transitional cell carcinoma, breast cancer, ovarian cancer, lung cancer, colon cancer, liver cancer, stomach cancer, or other gastrointestinal cancers.
80. (Previously presented) The composition of claim 67 and a pharmaceutically acceptable carrier.

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81. (Currently amended) The composition of claim 67, wherein the glucan ~~are~~ comprises 1,3-1,4 mixed linkages, ~~without 1,6 branches.~~
82. (Previously presented) The composition of claim 67, wherein the glucan is of high molecular weight.
83. (Previously presented) The composition of claim 82, wherein the molecular weight of the glucan ranges from 250,000 to 450,000 Daltons.
84. (Previously presented) The composition of claim 67, wherein the glucan is derived from barley, oat, wheat or moss.
85. (Previously presented) The composition of claim 67, wherein the glucan is stable to heat treatment.
86. (Previously presented) The composition of claim 85, wherein the composition is stable after boiling for 3 hours.
87. (Previously presented) The composition of claim 67, wherein the effective dose is about  $\geq 25$  mg/kg/day, five days a week for a total of 2-4 weeks.

Please add the following new claims:

88. (New) The composition of claim 67, wherein the glucan comprises 1,3-1,6 mixed linkages.
89. (New) A composition for achieving a synergistic therapeutic effect in a mammal in need thereof comprising:

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(a) a glucan comprising 1,3- $\beta$ -backbone with mixed linkages; and

(b) a antibody which is foreign to the immune system of the mammal, and which is effective against cancer or tumor cells,

wherein the synergistic therapeutic effect is the eradication or suppression of cancer or tumor cells; wherein the glucan is orally administered to said mammal; wherein the glucan is administered concurrently or sequentially with the antibody to said mammal; and wherein the efficacy of the antibodies to eradicate or suppress cancer or tumor cells is synergistically enhanced by the orally administered glucan.

90. (New) The composition of claim 89, wherein the antibody is a monoclonal antibody.
91. (New) The composition of claim 90, wherein the antibody is a tumor-binding antibody.
92. (New) The composition of claim 91, wherein the antibody is capable of activating complement.
93. (New) The composition of claim 92, the antibody is further capable of activating the antibody dependent cell-mediated cytotoxicity.
94. (New) The composition of claim 91, wherein the antibody is directed at HER-1 (epidermal growth factor receptor) or directed to a ganglioside.

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95. (New) The composition of claim 94, wherein the ganglioside is GD2 or GD3.
96. (New) The composition of claim 91, wherein the antigen is CD20 or CD22 or HER-2/neu or CD25.
97. (New) The composition of claim 89, wherein the cancer is neuroblastoma, melanoma, non-Hodgkin's lymphoma, Epstein-Barr related lymphoma, Hodgkin's lymphoma, retinoblastoma, small cell lung cancer, brain tumors, leukemia, epidermoid carcinoma, prostate cancer, renal cell carcinoma, transitional cell carcinoma, breast cancer, ovarian cancer, lung cancer, colon cancer, liver cancer, stomach cancer, or other gastrointestinal cancers.
98. (New) The composition of claim 89 and a pharmaceutically acceptable carrier.
99. (New) The composition of claim 89, wherein the glucan comprises 1,3-1,4 mixed linkages.
100. (New) The composition of claim 89, wherein the glucan comprises 1,3-1,6 mixed linkages.
101. (New) The composition of claim 89, wherein the glucan is of high molecular weight.
102. (New) The composition of claim 101, wherein the molecular weight of the glucan ranges from 250,000 to 450,000 daltons.

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103. (New) The composition of claim 89, wherein the glucan is derived from barley, oat, wheat or moss.

104. (New) The composition of claim 89, wherein the glucan is stable to heat treatment.

105. (New) The composition of claim 104, wherein the composition is stable after boiling for 3 hours.

106. (New) The composition of claim 89, wherein the effective dose is about  $\geq 25$  mg/kg/day, five days a week for a total of 2-4 weeks.

107.

(New) A composition for achieving a synergistic therapeutic effect in a mammal in need thereof comprising:

(a) a glucan comprising 1,3- $\beta$ -backbone with either 1,3-1,4 or 1,3-1,6 mixed linkages; and

(b) a antibody which is foreign to the immune system of the mammal, and which is effective against cancer or tumor cells,

wherein the synergistic therapeutic effect is the eradication or suppression of cancer or tumor cells; wherein the glucan is orally administered to said mammal; wherein the glucan is administered concurrently or sequentially with the antibody to said mammal; wherein the efficacy of the antibodies to eradicate or suppress cancer or tumor cells is synergistically enhanced by the orally administering glucan; wherein the glucan has high viscosity and high molecular

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weight; and wherein the molecular weight of the glucan is at least 100,000 Daltons.

108. (New) The composition of claim 107, wherein the antibody is a monoclonal antibody or a tumor-binding antibody.
109. (New) The composition of claim 108, wherein the antibody is capable of activating complement.
110. (New) The composition of claim 109, the antibody is further capable of activating the antibody dependent cell-mediated cytotoxicity.
111. (New) The composition of claim 108, wherein the antibody is directed at HER-1 (epidermal growth factor receptor) or ganglioside.
112. (New) The composition of claim 111, wherein the ganglioside is GD2 or GD3.
113. (New) The composition of claim 108, wherein the antigen is CD20 or CD22 or CD 25, or HER-2/neu.
114. (New) The composition of claim 107, wherein the cancer is neuroblastoma, melanoma, non-Hodgkin's lymphoma, Epstein-Barr related lymphoma, Hodgkin's lymphoma, retinoblastoma, small cell lung cancer, brain tumors, leukemia, epidermoid carcinoma, prostate cancer, renal cell carcinoma, transitional cell carcinoma, breast cancer, ovarian cancer, lung cancer, colon cancer, liver cancer, stomach cancer, or other gastrointestinal cancers.

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115. (New) The composition of claim 107 and a pharmaceutically acceptable carrier.
116. (New) The composition of claim 107, wherein the molecular weight of the glucan ranges from 250,000 to 450,000 daltons.
117. (New) The composition of claim 107, wherein the glucan is stable to heat treatment.
118. (New) The composition of claim 117, wherein the composition is stable after boiling for 3 hours.
119. (New) The composition of claim 107, wherein the effective dose is about  $\geq 25$  mg/kg/day, five days a week for a total of 2-4 weeks.